

**REMARKS**

Claims 1-18 are pending in the present application. In the non-final Office Action dated October 31, 2007, the Examiner made the following disposition:

- A.) Rejected claims 17 and 18 under 35 U.S.C. 112, first paragraph.
  - B.) Rejected claims 1-18 under 35 U.S.C. 112, second paragraph.
  - C.) Rejected claims 1-5 and 11-16 under 35 U.S.C. 102(b) as being anticipated by *Kamentsky*.
  - D.) Rejected claims 1 and 9-10 under 35 U.S.C. 102(b) as being anticipated by *Willner, et al.*
  - E.) Rejected claims 1 and 6-8 under 35 U.S.C. 102(b) as being anticipated by *Kornguth, et al.*
- Applicant respectfully traverses the rejections and addresses the Examiner's disposition below. Claims 1, 5, and 12-18 have been amended. Claims 2 and 4 have been canceled.

A.) Rejection of claims 17 and 18 under 35 U.S.C. 112, first paragraph:

Applicant respectfully disagrees with the rejection.

The Examiner argues that the disclosure does not enable because it does not teach specific secretion products and to which emotions the secretion products are related. Applicant disagrees. The specification clearly teaches the following illustrative examples of secretion product targets and their respective binding sites:

- target = immunoglobulin; binding site = antibody (pages 7 and 17)
- target = protein; binding site = metal nanoparticles with linkers (page 7)
- target = nerve transmitter acetylcholine; binding site = acetylcholine receptor (page 8)
- endocrine systems secretions associated with mental stress; specification includes cites to references with examples related to mental stress (pages 12 and 13)
- targets = serum albumin and streptavidin; respective binding sites = HS-Cys and disulfide-biotin analogue (page 21)

Further, in an illustrative example, the specification describes that endocrine system secretions are indicators of mental stress. (Pages 12 and 13). The specification cites to two publications that describe how endocrine system secretions are indicators of mental stress. (Page 13, reference to two Kitaoji Shobo references).

Therefore, the specification clearly enables specific secretion products and emotions to which they are related.

Applicant respectfully submits the rejection has been overcome and requests that it be withdrawn.

B.) Rejection of claims 1-18 under 35 U.S.C. 112, second paragraph:

Claims 1 and 12-18 have been amended as per the Examiner's request to overcome the rejection.

Claims 2-11 depend directly or indirectly from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable.

Applicant respectfully submits the rejection has been overcome and requests that it be withdrawn.

C.) Rejection of claims 1-5 and 11-16 under 35 U.S.C. 102(b) as being anticipated by *Kamentsky*:

Claims 1-5 and 11-16 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Kamentsky* (US Pat. No. 4,487,839). Applicant submits that the cited reference does not anticipate each and every limitation of the claims as presently amended.

*Kamentsky* merely teaches that different areas of the surface can be coated with various types of antibodies (col. 4, lines 26-31). One of the features of Applicant's claimed invention is that the detecting portion includes a plurality of binding sites permitting a plurality of targets to selectively couple therewith. *Kamentsky* fails to disclose the use of the effect of steric hindrance between a plurality of targets (see *Kamentsky* Fig. 2, concept of 2D binding site, compared to Applicant's Figs. 3 and 4, concept of 3D binding site).

Therefore, *Kamentsky* fails to disclose claims 1 and 12-16.

Claims 2-5 and 11 depend directly or indirectly from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable.

Applicant respectfully submits the rejection has been overcome and request that it be withdrawn.

D.) Rejection of claims 1 and 9-10 under 35 U.S.C. 102(b) as being anticipated by *Willner, et al.*:

Claims 1 and 9-10 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Willner, et al.* (US Pat. No. 6,630,309). Applicant submits that the cited reference does not anticipate each and every limitation of the claims as presently amended.

Like the *Kamentsky* reference, discussed above, *Willner, et al.* also fails to disclose a detecting portion that includes a plurality of binding sites permitting a plurality of targets to selectively couple therewith. Thus, *Willner, et al.* fails to disclose claim 1. Claims 9 and 10 depend directly from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable.

Applicant respectfully submits the rejection has been overcome and request that it be withdrawn.

E.) Rejection of claims 1 and 6-8 under 35 U.S.C. 102(b) as being anticipated by *Kornguth, et al.*:

Claims 1 and 6-8 were rejected under 35 U.S.C. § 102(b) as being anticipated by *Kornguth, et al.* (US Pat. No. 5,629,213). Applicant submits that the cited reference does not anticipate each and every limitation of the claims as presently amended.


Like the *Kamentsky* and *Willner, et al.* references, discussed above, *Kornguth, et al.* also fails to disclose a detecting portion that includes a plurality of binding sites permitting a plurality of targets to selectively couple therewith. Thus, *Kornguth, et al.* fails to disclose claim 1. Claims 6-8 depend directly from claim 1 and are therefore allowable for at least the same reasons that claim 1 is allowable.

Applicant respectfully submits the rejection has been overcome and request that it be withdrawn.

**Conclusion**

In view of the above amendments and remarks, Applicant submits that claims 1-3 and 5-18 are allowable over the cited prior art, and respectfully requests early and favorable notification to that effect.

Respectfully submitted,

 (Reg. No. 45,034)  
Christopher P. Rauch  
SONNENSCHNEIN, NATH & ROSENTHAL LLP  
P.O. Box #061080  
Wacker Drive Station - Sears Tower  
Chicago, IL 60606-1080  
Telephone 312/876-2606  
Customer #26263  
Attorneys for Applicant(s)